

**WEST**

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L7: Entry 7 of 26

File: JPAB

Aug 10, 1999

PUB-NO: JP411220354A

DOCUMENT-IDENTIFIER: JP 11220354 A

TITLE: SURFACE ACOUSTIC WAVE NOTCH FILTER

PUBN-DATE: August 10, 1999

## INVENTOR-INFORMATION:

NAME

COUNTRY

SEKI, SHUNICHI

ONISHI, KEIJI

TAGUCHI, YUTAKA

SATOU, HIROTERU

TOMITA, YOSHIHIRO

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

MATSUSHITA ELECTRIC IND CO LTD

APPL-NO: JP10272160

APPL-DATE: September 25, 1998

INT-CL (IPC): H03 H 9/64; H03 H 9/145; H03 H 9/25

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide an SAW(surface acoustic wave) notch filter which has its large attenuation in a blocking area near the pole of a pass band and also has its stable and satisfactory frequency characteristic.

SOLUTION: This notch filter includes a piezoelectric substrate 1, the input and output electric terminals 2 and 3 provided on the substrate 1, and the 1st to 4th serial arm SAW resonators 11 to 14 and a parallel arm SAW resonator 15 which are connected to the serial and parallel arms respectively placed between the terminals 2 and 3. Each of these resonators 11 to 15 has the reflectors 6 placed at both ends of an IDT(inter-digital transducer) 5. In such a constitution,  $RLm+RLg=p(Lm+Lg)$  is satisfied (0.95

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L7: Entry 11 of 26

File: JPAB

Mar 8, 1996

PUB-NO: JP408065097A

JP 8-65097

DOCUMENT-IDENTIFIER: JP 08065097 A

TITLE: SURFACE ACOUSTIC WAVE FILTER DEVICE

PUBN-DATE: March 8, 1996

## INVENTOR-INFORMATION:

NAME

COUNTRY

ICHIKAWA, SATOSHI

KURODA, YASUSHI

ETSUNO, MASAYOSHI

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

TOSHIBA CORP

APPL-NO: JP06195454

APPL-DATE: August 19, 1994

INT-CL (IPC): H03 H 2/64; H03 H 2/145

## ABSTRACT:

PURPOSE: To reconcile sufficient band widths and out-of-band attenuation amount by adding a notch filter composed of at least one or more resonators to at least one of the input/output of an interdigital transducer (IDT) serially and in parallel.

CONSTITUTION: IDT11 to 13 having reflectors Gr 7 and Gr 8 on the both sides are arranged in a horizontal line on a substrate. The electric signals inputted from a pad 1 pass a serial/parallel resonator, the signals are transmitted to the IDT 11 and the IDT 13, and the surface acoustic waves excited by these IDT are received in the IDT 12 at the center. The pad 1 is serially connected with a resonator (I) and a resonator (II) and the pad 1 is further connected with a resonator (III) in parallel. In this stage, the resonator (I) is composed of reflectors Gr 9 and Gr 10 and the IDT 14 held by the reflectors, the resonator (II) is composed of reflectors Gr 9a and Gr 10a and the IDT 15 held by the reflectors, and the resonator (III) is composed of reflectors Gr 9b and Gr 10 and the IDT 16 held by the reflectors.

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## WEST Search History

DATE: Thursday, April 24, 2003

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB=DWPI; PLUR=YES; OP=ADJ</i>			
L12	L11 and (series or serial) and (shunt or parallel)	17	L12
L11	(filter with (notch or reject\$)) and resonator	206	L11
<i>DB=EPAB; PLUR=YES; OP=ADJ</i>			
L10	(filter with (notch or reject\$)) and resonator	30	L10
<i>DB=JPAB; PLUR=YES; OP=ADJ</i>			
L9	(filter with (notch or reject\$)) and resonator	64	L9
L8	L6 and resonator	93	L8
L7	L6 and (series or serial) and (shunt or parallel)	26	L7
L6	filter and (notch or reject\$)	1534	L6
<i>DB=USPT; PLUR=YES; OP=ADJ</i>			
L5	L4 and (resonator with (series or serial) with (shunt or parallel))	29	L5
L4	notch filter	3784	L4
L3	L1 and ((series or serial) with (shunt or parallel) with resonator)	37	L3
L2	L1 and ((series or serial) with (shunt or parallel))	448	L2
L1	bandreject\$ filter or band reject\$ filter or reject\$ filter	2373	L1

END OF SEARCH HISTORY